Zebra LP2824 Plus Label Printer

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Overview

ImproMed®, LLC continually searches for new solutions for customer needs. When businesses came to us and said they needed a printer to print labels, we asked what features were most important to them.

They responded with reliability, clear printing, small size, quiet operation, and ease of use. After researching every available label printer we could find, ImproMed answered the challenge by delivering the Zebra LP2824 Plus Label Printer!

The Zebra LP2824 Plus Label Printer can be used to print nearly every type of label a business may need, including patient, check-in, prescription, X-ray, cage, and mailing labels.

The Zebra LP2824 Plus Label Printer is also small, with a footprint of just 5.8" by 9.1". It fits perfectly in a business where space is at a premium. A standard USB cable makes the printer easy for anyone to install in just minutes. ImproMed is also able to provide the same printer model using a CAT5e cable that can be used from any workstation in the building.

Contact ImproMed Customer Service for additional information on the amazing Zebra LP2824 Plus Label Printer.

ImproMed is also your source for Zebra LP2824 labels. We stock a large quantity of labels for prompt delivery, as well as LAB Plus cleaning cards and print heads. Labels and other paper products can be ordered by calling (800) 925-7171.

Installation of the LP2824 Plus Printer

Here are the items that are included with all printers:

- ✓ Zebra LP2824 Plus Printer
- ✓ Power cord and AC Adapter
- ✓ 1 starter role of labels
- ✓ CD containing Printer Drivers

USB Model

If a USB cable was ordered from ImproMed®, make sure that you have unpacked that with the printer. With the USB connection method, a workstation with Infinity or Triple Crown should be accessible to connect the printer to.

1. Plug the Power cord and AC Adapter together.
2. Plug the AC Adapter into the printer.
3. Plug the USB cable into the printer and the workstation.
4. Insert the CD into the workstation.
5. Turn the printer on. *Install New Hardware wizard should appear.*

> ***Tip: If a workstation is running Windows Vista, 7, or 2008 the hardware wizard begins in the background. Users will see a bubble appear from the system tray while the printer is being installed. When the bubble appears, clicking on that will allow users to make sure that the correct drivers are being installed.***

6. Select **No, not this time**.
7. Click **Next**.
8. Select **Install the software automatically (Recommended)**.
9. Click **Next**.
10. Click **Finish**.

Sharing the Printer

Windows XP / Server 2003

1. Click **Start | Settings | Printers and Faxes**.
2. Right-click on the **ZDesigner LP 2824 Plus (ZPL)** printer.
3. Left-click on **Properties**.
4. Rename the printer to **Label** on the General tab.
5. Click the **Sharing** tab.
6. Select **Share this printer**.
7. Enter the name of **Label** as the Share Name. *ImproMed® recommends adding more information when there is more than one label printer*
8. Click **OK**.

Windows Vista / Server 2008 / Windows 7

1. Click **Start | Control Panel | Printers** or click **Start | Devices and Printers**.
2. Right-click on the **ZDesigner LP 2824 Plus (ZPL)** printer.
3. Left-click on **Printer Properties**.
4. Rename the printer to **Label** on the General tab.
5. Click the **Sharing** tab.
6. Click **Change Sharing Options**.
7. Check **Share this Printer**.
8. Enter the *Share Name* of **Label**.
9. Select **Everyone** in the File Sharing dialog box and set the *Permission Level* to **Co-owner**.
10. Disable (uncheck) **Render print jobs on the client computers**.
11. Click the **Ports** tab.
12. Enable (check) **Enable bidirectional support**.
13. Click **OK**.

Connect other workstations to the Label Printer

Connect to Label printer installed on a Windows Vista/7 workstation from a Windows XP workstation

1. Log in as Administrator.
2. Click **Start | Run**.
3. Type in the **workstation name** the printer is connected to (i.e. \\ws2).
4. Click **OK**.
5. Right-click on the **Label** printer.
6. Left-click on **Connect**.
7. Answer Yes, if asked to restart the computer.
8. When the computer is restarted, log in as the normal Windows user.

Connect to Label printer installed on a Windows Vista/7 workstation from a Windows Vista/7 workstation

1. Log in as Administrator.
2. Click **Start | Control Panel | Printers** or click **Start | Devices and Printers**.
3. Click **Add a Printer**.

> ***Tip: If the printer is not listed, users can click Printer not listed and search for the workstation the printer is connected to.***

4. Select **\\[workstation name]\Label**.

> ***Tip: If the printer is not found using the above steps, please do the following:***
> 1. ***Choose Create a Port.***
> 2. ***Select Local Port.***
> 3. ***Enter \\[workstation name]\Label.***
> 4. ***Click OK.***

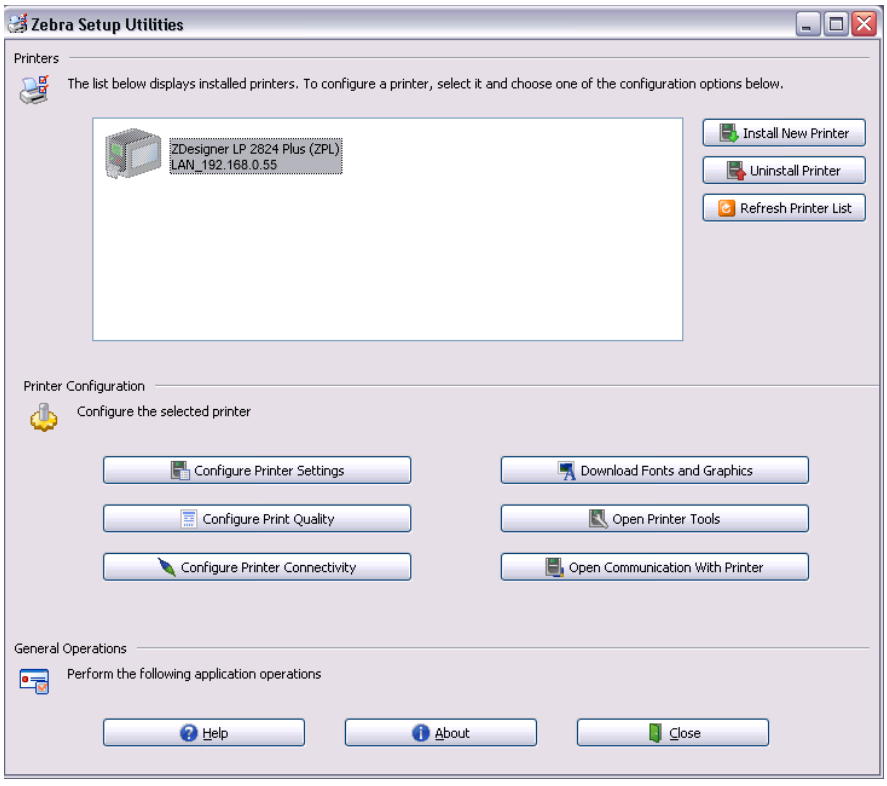
5. Click **Next**.
6. Click **Have Disk**. *Insert the Label CD.*
7. Browse to the CD for the Vista Drivers.
8. Click **Next**.
9. Enter the Printer Name as **Label**.
10. Uncheck **Set as Default Printer**.
11. Click **Finish**.
12. Answer Yes, if asked to restart the computer.
13. When the computer is restarted, log in as the normal Windows user.

Network Model

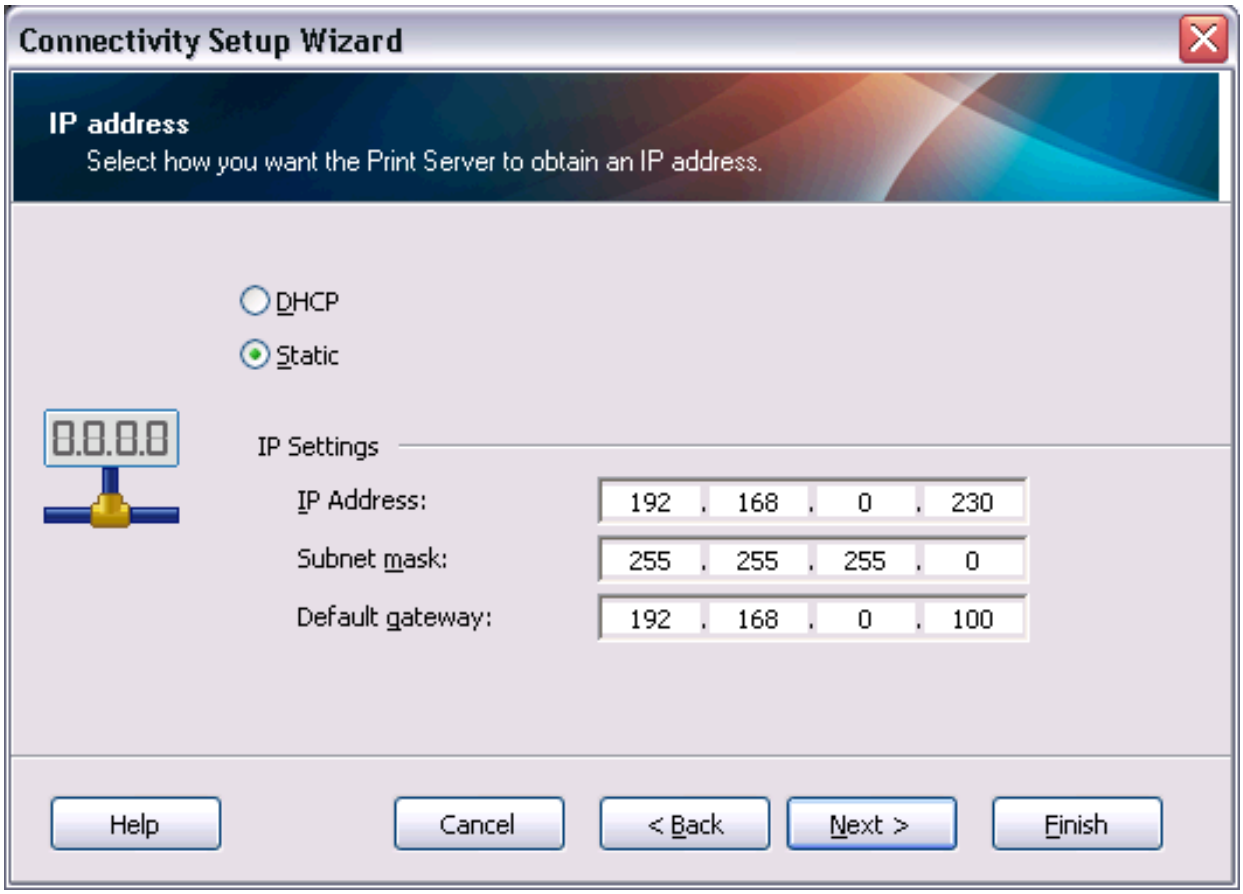
For the network model, we will begin by installing to one computer so that we can then configure the network properly to detect and utilize the printer properly. For this printer you will need USB and CAT5e cables.

Note: The USB Cable is only needed until the network configuration has been completed.

1. Plug the Power cord and AC Adapter together.
2. Plug the AC Adapter into the printer.
3. Plug the CAT5e cable into the printer and the network port.
4. Plug the USB cable into the printer and the workstation.
5. Start from the closest workstation and log into Windows as Administrator.
6. Insert the Zebra Specialty Printing Solutions CD.
7. Double-click **[My] Computer | CD-ROM | Software | ZebraSetupUtilities**.
8. Double-click **setup.exe**. *The Zebra Setup Utilities Installation wizard will appear.*
9. Click **Next**.
10. Check **I accept the terms of the license agreement**.
11. Click **Next | Next**.
12. Select **Anyone who uses this computer (all users)**.
13. Click **Next | Next**.
14. Check **I have read the information above**.
15. Click **Next**.
16. Check **Run Zebra Setup Utilities now**.
17. Turn the printer on.
18. Click **Finish**. *The Zebra Setup Utilities program opens.*



19. Select the **ZDesigner LP 2824 Plus** from the listing.
20. Click **Configure Printer Connectivity**.
21. Select **Wired**.
22. Click **Next**.
23. Select **Internal Print Server (print server is inside the printer).**
24. Click **Next**.

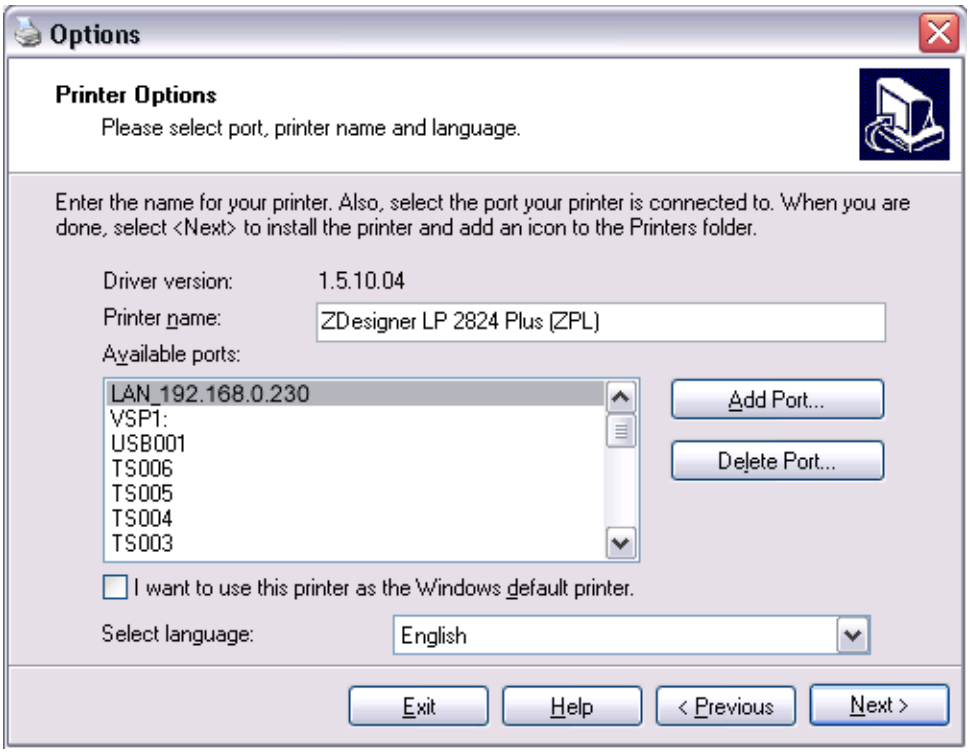


25. Select **Static**.
26. Enter the **Printer's IP address, Subnet Mask, Default Gateway**. *See ImproMed®'s recommendations below*:
    a. IP Address = 192.168.0.230
    b. Subnet Mask = 255.255.255.0
    c. Default Gateway = 192.168.0.100

Note: If the printer is not accepting the changes, please reset the printer to defaults. If assistance is needed to complete this, please contact ImproMed's Customer Support Center.

27. Click **Next | Next**.
28. Select **Printer**.
29. Click **Finish**.
30. From the printer, press the **Feed** button (Green button) until the light (beneath the button) flashes once. Then release the button and Printer Configuration pages should print. *This could print up to 3 labels.*
31. From the workstation, click **Install New Printer**.
32. Click **Next**.
33. Select **ZDesigner LP 2824 Plus (ZPL)**.

34. Click **Next**.



35. Click **Add a New Printer**.
36. Click **Add Port**.
37. Enter the **IP Address from step 26 (page 8)** in both the Port Name and the IP Address.
38. Click **OK**.
39. Select the newly created port (i.e. LAN_192.168.0.xxx).
40. Click **Next**.
41. Uncheck **Launch installation of Zebra Font Downloader Setup Wizard**.
42. Click **Finish**.

Note: If the System Prepare Wizard appears, you can click cancel - this would simply add another printer.

43. Log back in as a normal windows user.

Currently, you will have two of the same printers installed using different workstation ports you can do one of the following:

- ✓ Leave the USB connection up and running for troubleshooting purposes. If you choose this option, ImproMed® recommends not sharing this printer.
- ✓ Unplug the USB cable, remove the USB connection printer by using the Zebra Setup Utilities. This way you will only have one connection to have to worry about on this particular workstation.

Now that you have the printer installed and configured from one workstation, you can now move on to the rest using the new IP address that we configured in step 26. To verify that the IP address is what we assigned it to be, please repeat step 26 whenever necessary.

To install this printer on other workstations, please follow steps 6 - 26 and 31-43.

Suggested Printer Maintenance and Tips

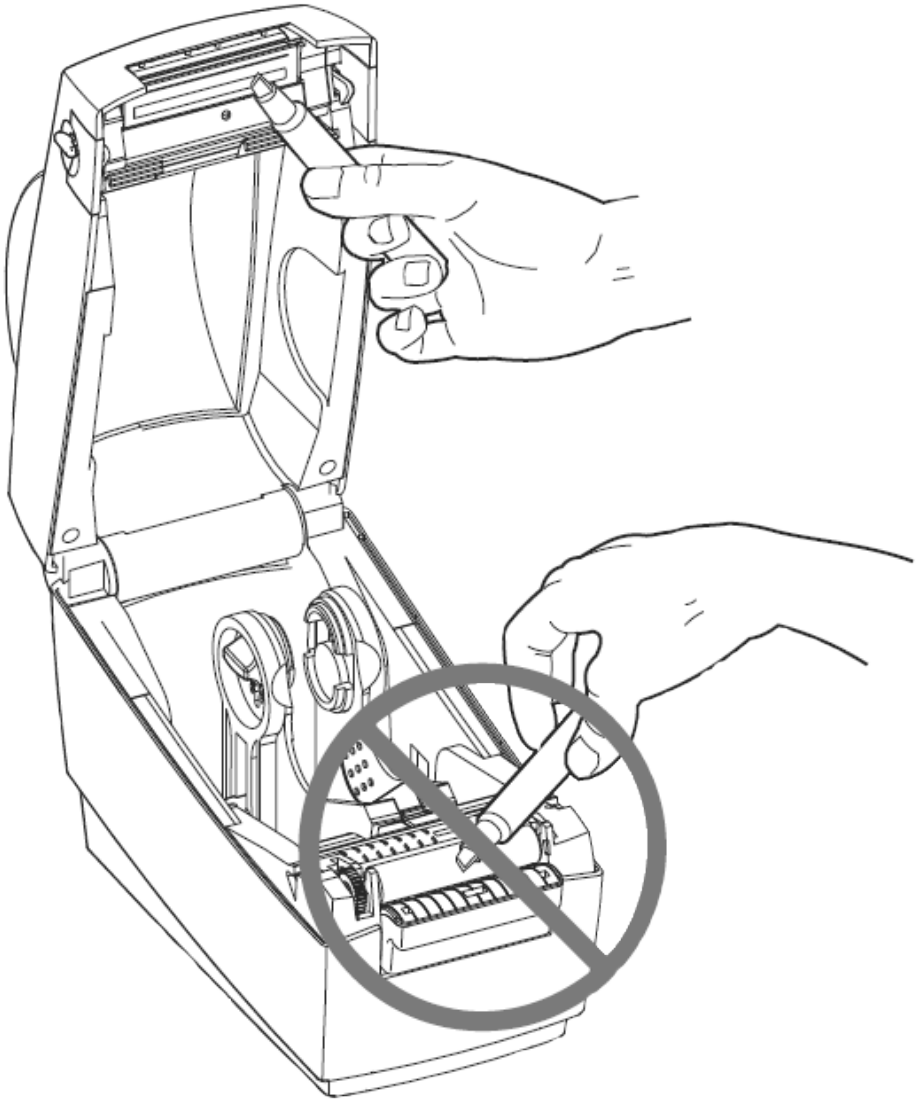
Cleaning the Printhead

Always use a new cleaning pen on the printhead (an old pen carries contaminants from its previous uses that may damage the printhead).

Caution • The printhead becomes hot while printing. To protect from damaging the printhead and risk of personal injury, avoid touching the printhead. Use only the cleaning pen to perform maintenance.

When you load new media, you can also clean the printhead.

1. Rub the cleaning pen across the dark area of the printhead. Clean from the middle to the outside. This will move adhesive transferred from the edges of media to the printhead outside of the media's path.
2. Wait one minute before closing the printer.



Status Light Descriptions

What the Status Light is Telling You

LED Status and Color	Printer Status	For a Resolutions, Refer to Number:
Off	Off	1
Solid Green	On	2
Solid Amber	Stopped	3
Flashing Green	Normal Operation	4
Flashing Red	Stopped	5
Double Flashing Green	Paused	6
Flashing Amber	Paused	7
Alternately Flashing Green and Red	Needs Service	8
Flashing Red, Red and Green	Needs Service	9
Flashing Red, Amber Green (* - Do NOT reset or turn off power!)	Memory Defragmentation	10*

1) The printer is not receiving power.

- ✓ Have you turned on the printer power?
- ✓ Check power connections from the wall outlet to the power supply, and from the power supply to the printer. Check the power supply's power indicatory light.
- ✓ Disconnect the printer from the wall outlet for 30 seconds and then reconnect the printer to the wall outlet.

2) The printer is on and in an idle state.

- ✓ No action necessary.

3) The printer has failed its power on self test (POST).

- ✓ If this error occurs right after you turn on the printer, contact ImproMed®, Inc for assistance. When the printer is operating normally, the printer status light will be amber for about 10 seconds before turning green (solid or blinking).

There is a memory error.

- ✓ If this error occurs after you have been printing, turn the printer power off and on, and then resume printing.

The printhead needs to cool down.

- ✓ If this error continues, turn the printer power off for five minutes or more, and then turn on. If the amber light persists, then the printer requires service.

4) The printer is receiving data.

- ✓ As soon as all of the data has been received, the status LED will turn green and the printer will automatically resume operation.

5) The media is out.

- ✓ Load a roll of labels and then press the Feed button to resume printing.

The printhead is open.

- ✓ Close the top cover and then press the Feed button to resume printing.

6) The printer is paused.

- ✓ Press the Feed button to resume printing.

7) The printhead is over temperature.

- ✓ Printing will stop until the printhead cools to an acceptable printing temperature. When it does, the printer will automatically resume operation.

8) FLASH memory is not programmed.

- ✓ Return the printer to an authorized reseller.

9) The printhead or motor has had a critical failure.

- ✓ Return the printer to ImproMed®, LLC.

10) The printer is defragmenting memory.

Caution • Do NOT turn off the printer power during defragmentation. Doing so can damage the printer.

- ✓ Defragmentation is a normal operation of the printer - necessary to manage the memory space for optimal use. The printer will defragment its memory both after a factory default and when the printer detects that a defragment is required.

  When the printer is in this condition, allow it to finish defragmenting. If this warning occurs frequently, check the label formats. Formats that frequently and repeated memory write/erase event will minimize the need for defragmentation.

  - ✓ If this warning condition does not go away, contact ImproMed®'s Customer Support Center. The printer requires service.

Feed Button Modes

Power Off Mode (Communications Diagnotics Mode)	
With the printer power off, press and hold the Feed button while you turn on the power.	
Flash Sequence	**Action**
Rapid Red Flashing	**Firmware Download Mode** - The printer starts rapidly flashing red to denote entry into the Firmware Download mode. Releasing the Feed button here will start initializing the printer for download. The printer is ready to start downloading firmware when the status light begins to slowly flash between red and green.
Amber	**Normal Operations Mode** - The printer continues into a normal printer initialization. Releasing the Feed button here will allow the printer to start normally without firmware download or operating in communications diagnostics mode.
Green	**Communications Diagnostic (Dump) Mode** - Release the Feed button immediately after the printer status light turns green. The printer will print 'Now in DUMP' at the top of the label and then advance to the next label. After printing the first label, the printer will automatically enter into diagnostic mode in which the printer prints out a literal representation of all data subsequently received. *To exit the diagnostics mode and resume printing, turn off and then turn on the printer. An alternate method for exiting the diagnostic mode is to press the Feed button as many times as it takes to clear the printer's command buffer and print 'Out of DUMP' on the label.*

Power On Mode

With the printer power on and top cover closed, press and hold the Feed button for several seconds. The green light status LED will flash a number of times in sequence. The explanation at the right (Action) shows what happens when you release the key after the start specific number of flashes and before the next flash sequence starts.

Flash Sequence	Action
*	**Configuration Status** - Prints a detailed printer configuration status label. The label can be used to verify printing, assist printer to computer communication configuration, maintenance, troubleshooting, and help us with customer care communications.
* **	**Standard Media Calibration** - The printer detects and sets media type and media length, and it adjusts the media sensors for optimal performance with the installed media. The printer will feed one to four labels. **Note: Users familiar with the Zebra EPL desktop printer use this Feed mode to replace power-up AutoSensing calibration.**
* ** ***	**Serial Port Configuration** - *Applies only to printers with serial interface ports.* To reset the communication parameters. Press and release the Feed button while the LED rapidly flashes amber and green. For autobaud synchronization: Send the **^XA^XZ** command sequence to the printer while the LED rapidly flashes amber and green. When the printer and host are synchronized, the LED changes to solid green. NOTE: No labels will print during the autobaud synchronization.
* ** *** ****	**Factory Defaults** - Resets the printer to the default factory settings and modes. See the configuration label for a list of the primary settings affected by this Feed Mode option. Other settings are exclusively set, viewed and controlled by programming are also reset. The printer then performs a standard media calibration. Once the printer has entered the Factory Default mode, the status light will turn amber for three (3) seconds. During that time you may do two things: Do nothing and the printer will reset the factory defaults automatically as described above OR press and hold the Feed button to enter a factory default reset modes for printers with a network printer option. Releasing the button after the first flash resets the network factory options only. Releasing the button after the second flash sequence (two flashes) will reset the printer defaults only. Releasing the button after the third flash (three flashes) will reset both the printer and network settings.
* ** *** **** *****	**Print Width Adjustment** - Prints a succession boxes starting at the minimum print width and ending in the printer's maximum print width in 4mm increments. Press the Feed button once when the printer has reached the desired maximum print width. Not that the printer driver and applications can override this setting.
* ** *** **** ***** ******	**Print Darkness (Density) Adjustment** - Prints a succession of bar code simulation patterns starting at the minimum darkness (print density/heat) and ending in the printer's maximum darkness in increments of four (4) using the ZPL darkness setting range values. Press the Feed button once the pattern is clear and legible. Do not continue to increase the darkness setting. Bar code line widths may become distorted reducing readability. Note that the printer driver and applications can override this setting.
* ** *** **** ***** ****** *******	**Manual Media Calibration** - The printer runs extensive tests to detect and set media type and media length, and then it adjusts the media sensors for optimal performance with the installed media. Manual calibration is recommended whenever you are using pre-printed media, print on the liner or if the printer will not correctly auto calibrate. A graphical profile of the media sensing will print.

If the feed button remains pressed after a 8-flash sequence, the printer exits the configuration mode when the Feed button is released.

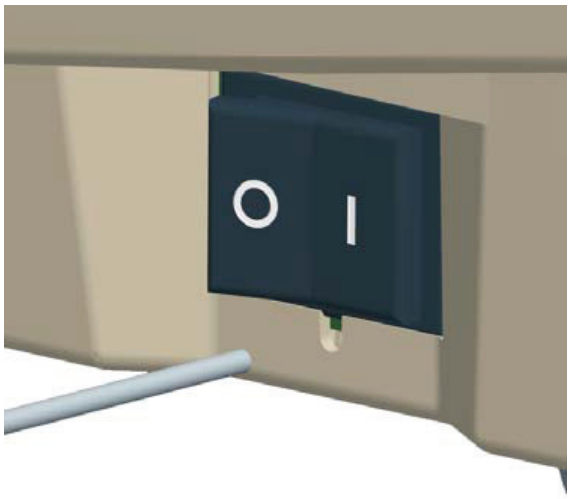
Using the Printer's Reset Button

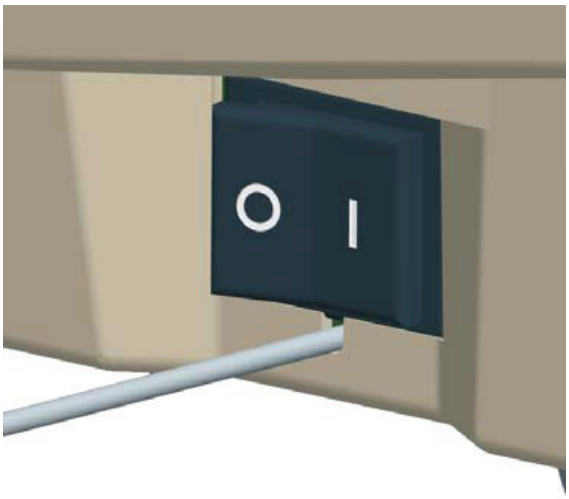
The printer's reset button can restore the printer or network (the internal print server) to factory default configuration.

By pressing and holding the reset button for one (1) or more seconds, the printer will enter a reset sequence and the status light will begin blinking every second until released. Releasing the button at the appropriate time tells the printer which reset function to perform. The table below describes the reset modes and sequence timing.

Seconds	Description
0-1	No Action
1-5	Printer - The printer shall perform a factory default reset. Upon completion of the factory default reset the printer shall automatically print a configuration label and a network label (if present).
6-10	Network Option (Internal Print server) - the printer shall drop connection to the network and a network factory default reset shall occur. Upon completion of the network default reset the printer shall automatically print a configuration label and a network label. If no Ethernet is installed in the printer and the printer shall perform no action if the button is pressed 5 or more seconds.
10 or more	Exits the reset factory defaults function without resetting the printer or changing the printer settings to the factory defaults.

In order to reset the printer and network using the reset button, you must perform two separate reset actions: a printer reset (press and hold the button 1-5 seconds) and a network reset (press and hold the button 6-10 seconds). See the *Feed Button Modes* on page 13 to reset both printer and it's print server at the same time using the 4-flash Feed Button mode.





Tip: ImproMed recommends using a paper clip tip to reach the reset button under the power button as displayed in the images above.